

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A submerged hollow fiber membrane module, comprising:

~~two first and second~~ module headers, each of the module headers having a filtrate water collecting portion for collecting filtrate water filtered through hollow fiber membranes and a filtrate water outlet;

an air diffusion unit between the ~~two first and second~~ module headers, the air diffusion unit comprising support tubes and first and second air diffusion tubes having air diffusion holes; and

a bundle of hollow fiber membranes having both opposite ends fixed to the insides of the module headers by an adhesive so as to form a water collecting space within the module headers, the ends of the hollow portions of the hollow fiber membranes being opened and disposed in parallel to a filtrate water discharge surface,

wherein each of the support tubes has opposite ends connected to the two module headers respectively thereby keeping the two module headers spaced apart by a predetermined distance, and at least one of the support tubes has a plurality of air diffusion ~~holes~~holes,

wherein each of the first and second air diffusion tubes is connected to the support tubes near the first and second module headers, respectively, and disposed in the bundle of hollow fiber membranes, and

wherein the support tubes and the first and second air diffusion tubes are in fluid communication with one ~~another-another, and~~

wherein the first and second air diffusion tubes eject air in a first direction substantially parallel with a longitudinal direction of the hollow fiber membranes and at least one of the support tubes ejects air in a second direction substantially perpendicular to the longitudinal direction of the hollow fiber membranes.

2. (Previously Presented) The module of claim 1, wherein at least one of the support tubes has an air injection port.

3.(Original) The module of claim 1 or 2, wherein the distance between the module headers and the air diffusion tubes arranged adjacent thereto is 1 to 20cm.

4.(Original) The module of claim 1 or 2, wherein the diameter of the air diffusion holes is 2 to 8mm.

5. (Original) The module of claim 1 or 2, wherein the diameter of the air diffusion holes disposed on the air diffusion tubes is increased by 10 to 100% as compared to the air diffusion holes disposed right above as they go toward a lower part of the module.

6. (Previously Presented) The module of claim 2, wherein the diameter of the diffusion holes of a lower support tube is preferably 1.5 to 2.0 times larger than the diameter of smallest air diffusion holes of the air diffusion tubes.

7. (Original) The module of claim 1, wherein the tensile strength of a hollow fiber membrane constituting the bundle of hollow fiber membranes is 1kg/strand or more.

8. (Original) The module of claim 1, wherein the hollow fiber membrane constituting the bundle of hollow fiber membranes is a composite hollow fiber membrane reinforced by braid and having a tensile strength greater than 10kg/strand.

9. (Original) The module of claim 1, wherein the shape of the module headers is a cylindrical shape or a rectangular shape.

10. (Previously Presented) The module of claim 2, wherein the air injection port is provided with a first connecting member and the filtrate water outlet is provided with a second connecting member, such that two or more submerged hollow fiber membrane modules may be serially coupled.

11. (Previously Presented) The module of claim 10, wherein the first connecting member provides a path for flowing air between the serially coupled submerged hollow fiber membrane modules, and the second connecting member provides a path for flowing filtrate water between the serially coupled submerged hollow fiber membrane modules.

12. (New) The module of claim 1, wherein the first and second module headers are vertically oriented.

13. (New) The module of claim 1, wherein the first and second module headers are in fluid communication with the support tubes.

14. (New) The module of claim 13, further comprising an air inlet in one of the support tubes.